

# Current Military Wargaming Use

A View from the United States Military Academy

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Department of Systems Engineering

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# Agenda

- Where we've been
- Where we are
- Where we're going
- Contact info

# Where We've Been

- Combat wargaming has been around since just after Cain slew Abel (I think)
- Mathematical analysis of combat grew considerably from the early 1900s (Lanchester)
- The marriage of operational and mathematical science flourished in World War II
- Operational and RDT&E analysis have been increasingly interwoven since then

# Where We Are

- Analysis of tactics, techniques, procedures
  - Education and Training
- Analysis of material solutions (RDT&E)
- Recruiting
- Analysis of M&S capabilities in rapidly changing, high-technology world
  - LZ X-Ray, Troy, D-Day

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1 2 3 4 5

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Date: 25 FEB 08  
It has been announced that the Team Warfare League will be hosting an America's Army 4v4 tournament for European teams. Sign-ups have already begun and will be open until 28 Feb 08. Rules, sponsors, and sign up information for this tournament have been posted on the Team Warfare league site.  
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Total Registered Players  
9,072,968  
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5,015,612  
New Users  
2,928  
New Users this Month  
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# America's Army

The screenshot shows the America's Army website interface. At the top, there's a navigation bar with links like HOME, FORUMS, REGISTER, and YOUR ACCOUNT. Below this is the main header with the title 'THE OFFICIAL ARMY GAME' and the 'AMERICA'S ARMY' logo. A secondary navigation bar includes links for GAME INTEL, REAL HEROES, DOWNLOADS, COMMUNITY, SUPPORT, MEDIA, ABOUT, and U.S. ARMY. The main content area is divided into several sections. On the left, there's a 'Preview' section for 'The Wait is Over' featuring a soldier's face. In the center, there's a large banner for 'The Wait is Over' with the text 'The Only Game Based on the Experiences of Real U.S. Army Soldiers.' and 'Taking you deeper into the ranks, with the most realistic training, and unparalleled missions.' To the right of this banner is a smaller image of a soldier in a vehicle. Below the banner is a 'Tested by Heroes' section. On the far right, there's a 'NEWS & ARTICLES' section with a 'FORUM HOT TOPICS' sub-section. Below the main banner, there's a row of buttons: TRUE SOLDIERS, VAE, GAME FEATURES, MISSION DEPOT, and EVENTS. At the bottom, there's a 'CURRENT VERSION' section showing 'Americas Army: Special Forces Overmatch' with version 2.8.3. To the left of this, there's a 'SQUAD ROLES' section with a 'Grenadier' role highlighted. To the right of the 'CURRENT VERSION' section, there's a 'VISIT WWW.ARHONOR.COM TO ACQUIRE HONOR SERVERS' button. At the very bottom, there's a footer with the U.S. Army logo, a 'TEEN T' rating, and a disclaimer about the presence of logos, URLs, or other information identifying private companies or other non-federal entities.

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**Featured Hero: SGT Tommy Rieman**  
During Operation Iraqi Freedom Sergeant Tommy Rieman distinguished himself by acts of conspicuous gallantry and courage under fire ...  
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# Historical Simulation

- Identifies capability gaps in wargames and simulations
- Allows for multiple what-if scenarios
- Provides a reasonable testbed for evolving TTPs and capabilities
- Examples:
  - LZ X-Ray, Ia Drang Valley, Vietnam
  - Troy
  - Pegasus Bridge, Normandy, D-Day



# Land Warrior at LZ X-Ray

**An historical analysis of the 21st Century soldier**



# Purpose of the Work

## **Phase 1:**

**Explore the feasibility of replicating a Vietnam-era battle in simulation, using 1960s and Land Warrior technologies**

## **Phase 2:**

**Given feasibility, recreate a Vietnam-era infantry battle to provide vignettes for comparing Land Warrior and non-Land Warrior equipped forces**



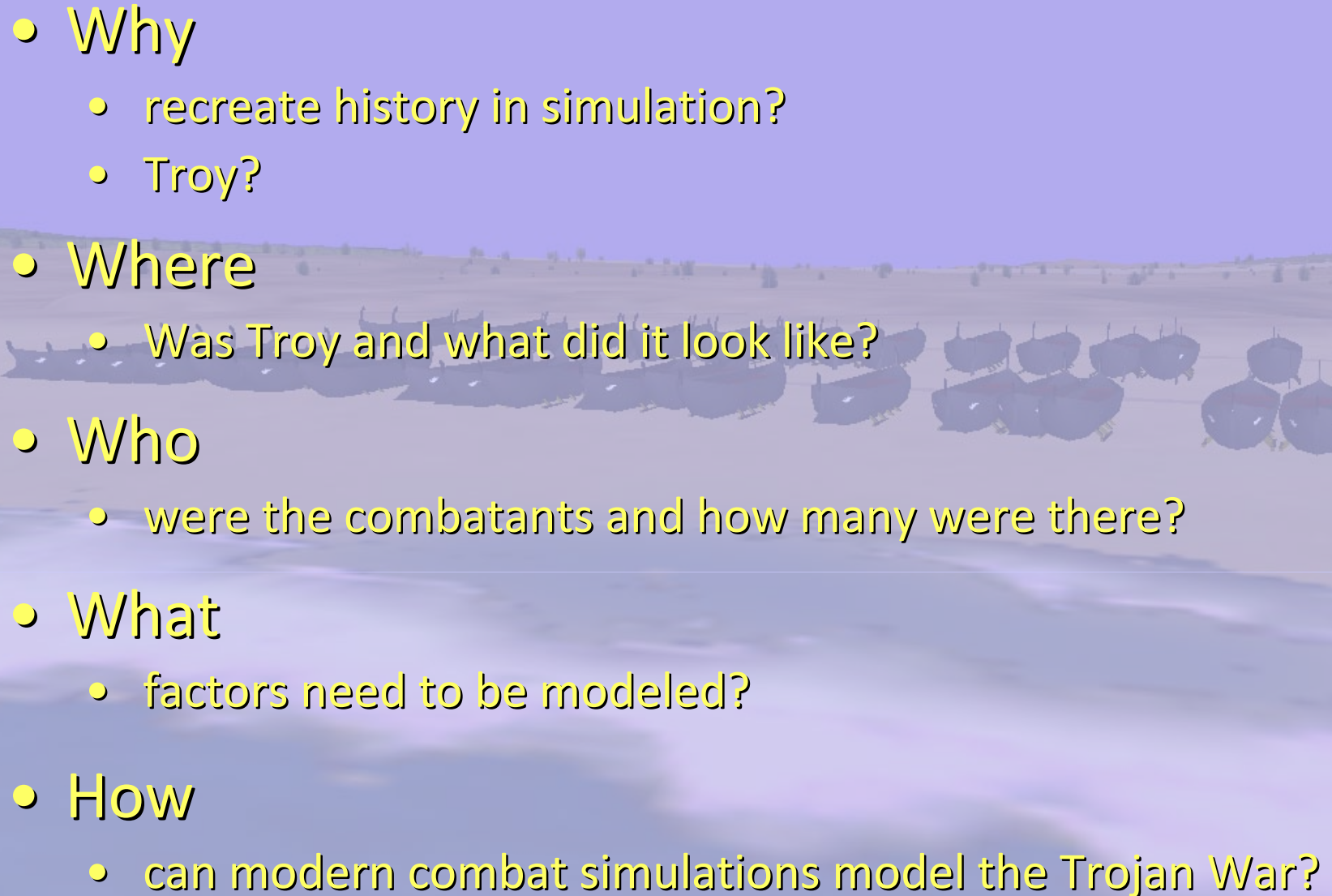
# TROY REVEALED

SYSTEMS ENGINEERING – BEHIND THE SCENES

UNSOLVED  
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- 
- Why
    - recreate history in simulation?
    - Troy?
  - Where
    - Was Troy and what did it look like?
  - Who
    - were the combatants and how many were there?
  - What
    - factors need to be modeled?
  - How
    - can modern combat simulations model the Trojan War?



24<sup>th</sup> International Symposium on Military Operational Research  
Bishop Waltham, Hampshire, United Kingdom  
29 August 2007

# Enhancing the Human Dimension of Synthetic Human Entities

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West Point, New York







# The Problem with People



- ◆ No two real people are exactly alike
- ◆ Every computer-generated person in combat simulations *is* exactly alike
- ◆ Militaries are using these simulations to:
  - ◆ Train soldiers
  - ◆ Assess doctrine, tactics, techniques and procedures
  - ◆ Assess weapon and other materiel scenarios



# Where We're Going

- Increased reliance on high-quality AI
  - Autonomous behaviors
  - Interactivity; High-Fidelity First-Person Shooter
- Highly customizable scenarios
  - TTPs in theater have ~ a two-week lifespan
  - Scenarios must keep pace with technology infusions
- Rapid system modeling
  - Analyst level, GUI driven

# Contact Info

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